



UNIVERSAL TECHNOLOGY AND MANAGEMENT UNIVERSITY

UTAMU

**GUIDELINES FOR PREPARING AND PRESENTING A RESEARCH PROPOSAL
AND REPORT**

Undergraduate Proposal Guidelines for the School of Technology, Computing,
and Engineering

UNIVERSAL TECHNOLOGY AND MANAGEMENT UNIVERSITY

Version

MARCH 2026

[P R O J E C T T I T L E]

[YOUR NAME]

[Reg.Number]

DEPARTMENT OF [DEPARTMENT NAME]

SCHOOL OF TECHNOLOGY, COMPUTING AND ENGINEERING

Supervisor: [Supervisor Name]

Department of [Department Name]

A Project Report Submitted to the Department of [state your department] in the School of Technology, Computing and Engineering in Partial Fulfillment of the Requirements for the Award of the Degree of Bachelor of [insert your course] of Universal Technology and Management University

Date [Month, Year]

GUIDANCE ON HOW TO ORGANIZE YOUR PROJECT REPORT.

PROPOSAL ENDS ON CHAPTER FOUR.

FULL REPORT GOES UP TO THE END.

When writing the final report, take note of the following:

Chapter 1 to chapter 3 are similar to the ones of the proposal. The minor change will be in the tense of your reports. i.e the proposal had future tense as you were proposing what you WILL DO. As for the final report, the tense is future tense as you are reporting what you HAVE DONE

CHAPTER ONE

Introduction

You might need to introduce your work

1.1 Background

Give a background around your area, the stats, what is happening, case studies....

This provides the rationale of the study providing evidence and conditions of the existing situations to make the reader feel the urgency of the problem and the need to study in order to solve it or contribute to its solution.

- (i) Within the first sentence, try to capture the thrust of your research.
- (ii) Avoid circular reasoning.
- (iii) Make your introduction interesting in order to capture the interest of your audience.

1.2 Problem Statement

First sentence should state the problem

E.g. problem of inadequate information..... This leads to Support this with other information and facts

E.g. there is a problem of..this leads to inconsistency and redundancies Requires careful formulation and refers to what has been identified and needs a solution in the practical world, theoretical world or both.

- (i) Should clearly state the nature of the problem and its known or estimated magnitude/extent locally, regionally or even globally.
- (ii) Should be concise and brief (not more than 1 paragraph)

Research questions

May come from specific objectives

E.g. how do tourists explore a country; how do they get info? Help you understand the problem better.

E.g. wat would happen if I did abcd...

1.3 Main Objective

Refers to the general intention of the project. Should clearly spell out what the project is supposed to accomplish.

1.4 Objectives

These are specific aims/objectives arising directly from the main objective of the study. For each specific objective one must have a method to attempt to achieve it. [clearly stated in methodology]. Specific objectives should advisably not exceed four in number.

Specific Objectives should be:

- (i) Clear, specific and concrete
- (ii) Realistic and achievable
- (iii) In order of importance
- (iv) Measurable

Develop ===== gathering requirements + design of a model + implementation of the model + a working system or prototype + testing and validation.

#3 Third objective should be implementing the model into a prototype You cannot evaluate a system; we evaluate something theoretical.
You validate a system

1.5 Scope (*where applicable*)

The scope provides for the boundary of the research in terms of depth of investigation, content, sample size, methodology, geographical and functionality coverage.

[geographical.... what you are going to cover and y] [context/design scope... The extent of the system and y]

1.6 Significance

This refers to the relevance of the project in terms of academic contributions and practical use that might be made of the findings. It should reflect on knowledge creation, technological and socio-economic value to the community. It should: -

- (i) Convince readers of the importance of the proposal
- (ii) Show how the project will contribute to theory or practice.
- (iii) Indicate whether the research is still important; whether such work has been done before.

Conclusion: Always conclude every chapter

CHAPTER TWO

HOW TO ORGANIZE LITERATURE REVIEW

Suppose the title of the project is : A Web Based Patients Management Information System. The literature Review of the project could be organized as shown below.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Give a brief introduction about the chapter.

2.2 Patients Management Information Systems

What are they?, How do they work? What are their advantages and disadvantages in health institutions?

2.3 Case studies of Patients Management Information Systems

Get at least two case studies of systems related to the one being developed in the project and for each of them,

- State where and why it was developed
- Explain how that system works
- Identify the weaknesses of such a system in managing patients information in a health facility.

Make a comparison of each of these systems with the proposed system using a table like the one below;

CHAPTER FOUR

HOW TO ORGANIZE CHAPTER FOUR.

Chapter four is usually the core of the project and thus much care should be taken in this chapter. The following order is based on a database project that involves modeling of processes and data in the design

CHAPTER FOUR: SYSTEM STUDY, ANALYSIS AND DESIGN

4.1 Introduction

Give a brief description about the chapter.

4.2 System Study

Here the student presents the results of data collection. He explains the present situation and how business is conducted and also identifies the challenges with the present system.

4.3 System Analysis

Here the student gives specification of the proposed system based on the results of system study. In other words, requirements are presented here

4.3.1 User Requirements

4.3.2 Functional Requirements

4.3.3 Non-functional Requirements

[It is wise not to put system requirements(i.e the minimum requirements of the system in terms of hardware and software) because the system is not yet implemented and thus you can't be sure of such requirement. Such can be stated after testing the system]

4.4 System Design

This should be divided into two parts; process modeling and data modeling but you can also include the architectural design of the

system

4.4.1 Process Modeling

Here the student can choose to use the OOAD approach with use cases and sequence diagrams to show the flow of information and the sequence of events as they occur in the system and the participants in the system.

Alternatively, the student can use the Data Flow Diagrams. The context Diagram should be used to show the system at abstract level and the Level-1 DFD should be used to show the various external entities interact with processes in the system. The DFD should have a key of symbols used and a data dictionary which clearly explains the processes, the external entities, data stores, data flows and data reports.

4.4.2 Data Modeling

a) Data Requirements

These should be conditions about the data to be modeled.
For example if the system manages patients records, then who is a patient?, what data is captured about a patient?, which fields are unique about a patient?

b) Identification of Entities and Attributes

From data requirements, identify the entities and their associated attributes. These could be put in a table.

c) Modeling of Entity Relationships

Here, model the relationships between the participating entities. For example, how is Patient related to Doctor or Disease? What is the cardinality of such a relationship? Represent these relationships with diagrams and ensure that design principles are adhered to.

d) Class Diagram or Entity Relationship Diagram of the system

Depending on the choice you made in the methodology, you can draw a class diagram or ERD to represent your data model.

e) Structure of Relations for the Database

This aims at mapping the ERP or Class Diagram on the relational schema. It presents the structure of the relations/table of the database.

For example, the Patient relation could look like this

Field Name	Data Type	Constraint
PatientID	varchar(20)	Primary Key. Not Null
....
...
DoctorID	varchar(15)	Foreign Key. References Doctor(DoctorID). Not Null

NB: This should mark the end of Chapter Four

CHAPTER FIVE

HOW TO ORGANIZE CHAPTER FIVE

CHAPTER FIVE: SYSTEM IMPLEMENTATION, TESTING AND VALIDATION

5.1 Introduction

Introduction to the chapter

5.2 Functions Provided by the system

What are the functions provided by the system to each of user categories. In other words, if a system admin logs into the system what can he/she? If another staff logs into the system ,what modules can he/she access?

5.3 Sample Screen Shots

Give some sample screen shots and explain each of them. These should be few and focus on data input forms and data reports that show that functional requirements were achieved.

5.4 System Testing and Validation Results

For example, how many tested the system? How many said what? What were their suggestions that would help to make the system better?

5.5 System Requirements

What are the minimum requirements for the system to perform its functions in terms of hardware and software?

CHAPTER SIX

HOW TO ORGANIZE CHAPTER SIX

CHAPTER SIX: CONCLUSION AND FUTURE WORK

This should give a summary and conclusion from the study. Future work should tell us how other researcher can extend your work. In other words what do you feel you did not achieve that you want other people to work on in the future?

References

This is a list of all works cited in the proposal and should be written according to the approved format. The approved format for BIST is APA referencing style. For more info on APA referencing style check the pdf file on the projects page.

The APA Style of Referencing

This is what should be followed in writing references and citing in the text.

This guide contains common examples of APA Style references. Section numbers indicate where to find the examples in the Publication Manual of the American Psychological Association (7th ed.). Note that some section numbers are different in the Concise Guide to APA Style (7th ed.)Manual and Concise Guide. Also see the reference examples on the APA Style website.

Journal Article

Niepel, C., Hausen, J. E., Weber, A. M., & Möller, J. (2025). Understanding mean-level and intraindividual variability in state academic self-concept: The role of students' trait expectancies and

Appendices

This section comprises of a budget, time frame, explanatory notes (e.g. List of places to be visited, approval letters, maps etc.) and instruments to be used (e.g. Questionnaire, interview schedule etc.).